



Barometric Pressure Measurement Procedures

Note: If you are a GLOBE School you may want to use the GLOBE Barometric Pressure Protocol (pdf) and GLOBE Atmosphere Investigation Integrated 1-Day Data Sheet (pdf). Even if you are not a GLOBE school the Barometric Pressure Protocol provides excellent background information to understand the importance of barometric pressure in weather measurements.

Purpose: You will record barometric pressure at least once a day and at intervals during the day. Maintaining an accurate record of the barometric pressure during the day will allow you to compare barometric pressure variations with temperature and with events like snowstorms and the formation of particular snowflake types. Changes in barometric pressure often indicate changes in weather.

Materials: Measurement of barometric pressure may be made using a mercury barometer, aneroid barometer, or an altimeter. Mercury barometers pose a serious health risk and have been eliminated from most classrooms. An altimeter should be used if the elevation of the site is above 500 meters.

The barometer or altimeter should be securely mounted inside at eye level. The pressure will be the same inside and outside.

Procedure:

1. All weather data should be recorded at the same time at least once every day. It is ideal to record weather data about every hour – and more frequently during snowstorms.
2. Record the time and date on the Weather Watch Field Data Sheet.
3. Read the barometer to the nearest 0.1 millibar (hectopascal).
4. Record this reading as 'current barometric pressure' on the Weather Watch Field Data Sheet.
5. Adjust the 'set needle' to the current pressure. This allows you to detect changes to the pressure at a glance.
6. If your school is a registered Winter's Story Weather Station, return to the classroom and submit Weather Watch data to your site.